

CONTENTS OF AGRICULTURAL AND FOREST METEOROLOGY, VOLUME 49

VOL. 49 NO. 1

DECEMBER 1989

Research Papers

- Ratio of stomatal resistance on two sides of wheat leaves as affected by soil water content
Z.-M. Lu (Beijing, People's Republic of China) 1
- On the application of the CERES-Maize model to the North China Plain
Y. Wu (Beijing, People's Republic of China), C.M. Sakamoto and D.M. Botner
(Columbia, MO, U.S.A.) 9
- Studies on the measurements of crop emissivity and sky temperature
J.-M. Chen and R.-H. Zhang (Beijing, People's Republic of China) 23
- A mathematical model for prediction of time course of vegetable supply based on
meteorological factors
X.-W. Yang and J.-L. Chen (Shanghai, People's Republic of China) 35
- The significance of radiative coupling between vegetation and the atmosphere
Ph. Martin (Berkeley, CA, U.S.A.) 45
- Vapor pressure deficit calculations and their effect on the combination equation
E.J. Sadler and D.E. Evans (Florence, SC, U.S.A.) 55

VOL. 49, NO. 2

JANUARY 1990

Research Papers

- Carbon dioxide exchange rates in wheat canopies. Part I. Influence of canopy geometry on
trends in leaf area index, light interception and instantaneous exchange rates
G.W. Wall and E.T. Kanemasu (Manhattan, KS, U.S.A.) 81
- Carbon dioxide exchange rates in wheat canopies. Part II. Photosynthetic and phytomass
production efficiencies
G. Wall and E.T. Kanemasu (Manhattan, KS, U.S.A.) 103
- Evaluation of groundnut response to early moisture stress during the rainy and the post-
rainy seasons
P.S. Sarma (Rajendranagar, India) and M.V.K. Sivakumar (Niamey, Niger) 123
- Application of an energy combination model for evaporation from sparse canopies
P.M. Lafleur (Peterborough, Ont., Canada) and W.R. Rouse (Hamilton, Ont., Canada) . 135
- Porometry and baseline analysis: the case for compatibility
J.L. Monteith (Andhra Pradesh, India) 155

Short Communication

- Stomatal response to humidity as inferred by porometry and infrared thermometry. Reply
to "Porometry and baseline analysis: the case for compatibility", by J.L. Monteith and
S.B. Idso (Phoenix, AZ, U.S.A.) 169

VOL. 49, NO. 3

FEBRUARY 1990

- Derivation of an angle density function for canopies with ellipsoidal leaf angle distributions
G.S. Campbell (Pullman, WA, U.S.A.) 173
- Modification of an orchard climate with increasing shelterbelt height

K.J. McAneney, R.F. Barber (Kerikeri, New Zealand), M.J. Salinger and A.S. Porteous (Wellington, New Zealand).....	177
The vertical movement of adult western corn rootworms (<i>Diabrotica virgifera virgifera</i>) relative to the transport of momentum and heat	
R.H. Grant and K.P. Seevers (West Lafayette, IN, U.S.A.)	191
Estimation of the soil heat flux/net radiation ratio from spectral data	
W.P. Kustas and C.S.T. Daughtry (Beltsville, MD, U.S.A.)	205
Small area variability of warm-season precipitation in a semiarid climate	
B.G. McConkey, H.W. Cutforth (Saskatoon, Sask., Canada) and W. Nicholaichuk (Swift Current, Sask., Canada)	225
Comparison of Bowen ration and aerodynamic estimates of evapotranspiration	
P. Pieri (Pont-de-la-Maye, France) and M. Fuchs (Bet Dagan, Israel)	243
Publications Received	257

VOL. 49, NO. 4

MARCH 1990

Research Papers

Worldwide environmental productivity indices and yield predictions for a CAM plant, <i>Opuntia ficus-indica</i> , including effects of doubled CO ₂ levels	
V. Garcia de Cortázar (Santiago, Chile) and P.S. Nobel (Los Angeles, CA, U.S.A.)	261
Wheat yield variability in the S.E. of the Province of Buenos Aires	
E.M. Sierra and S.M. Brynsztejn (Buenos Aires, Argentina)	281
Measurement and estimation of evaporation from soil under sparse barley crops in northern Syria	
S.J. Allen (Reading, Gt. Britain)	291
Modified heat-meter method for determining soil heat flux	
D.B. Watts, E.T. Kanemasu (Manhattan, KS, U.S.A.) and C.B. Tanner (Madison, WI, U.S.A.)	311
Simultaneous measurements of heat, water vapour and CO ₂ fluxes above alfalfa and maize	
S.M. McGinn and K.M. King (Guelph, Ont., Canada)	331
Seasonal changes in the albedo of a maize crop during two seasons	
A.F.G. Jacobs and W.A.J. van Pul (Wageningen, The Netherlands)	351
Announcement.....	361

